

## OIB - P-3 Orion 04/06/18 Science Report

**Aircraft:** [P-3 Orion - WFF](#) ([See full schedule](#))

**Date:** Friday, April 6, 2018

**Mission:** OIB

**Mission Location:** Greenland

**Mission Summary:**

OIB completed the baseline priority Laxon Line mission. This mission is a near-exact repeat of similar missions flown each year of OIB beginning in 2009. In addition to Level-1 Requirements SI1 and SI2, the flight addresses sea ice level 1 baseline requirement SI3a by providing data on the thickness gradient and distribution of perennial and seasonal ice across the Arctic Basin.

Overall this was a very smooth flight. Only a small section of clouds were present about mid-way through the flight but this did not cause a loss in data collection. DMS was able to fix their primary camera system which had failed during the previous flight and collected good data throughout. All other instruments performed well with no issues.

### Data Volumes

ATM T6: 114 Gb

ATM T7: 136 Gb

CAMBOT: 84 Gb

FLIR: 12 Gb

KT19: 12 Mb

DMS: 103.0 Gb

Snow radar: 1.14 Tb

MCoRDS: 160 Gb (Experimental high altitude ping pong data)

Accumulation radar: No data collected

Data on: 1426

Data off: 2008

**Submitted by:** Nathan T. Kurtz on 04/06/18

**File:**



[laxon\\_line\\_map.pdf](#)

**Related Flight Report:**

## P-3 Orion 04/06/18

**Flight Number:** 2018 OIB Arctic -Science #5

**Payload Configuration:** 2018 OIB Arctic

**Nav Data Collected:** No

**Total Flight Time:** 8.8 hours

**Submitted by:** Janet Letchworth on 04/07/18

**Flight Segments:**

|                           |  |                |                  |
|---------------------------|--|----------------|------------------|
| <b>From:</b>              | BGTL   | <b>To:</b>     | PAFA             |
| <b>Start:</b>             | 04/06/18 12:55 Z   | <b>Finish:</b> | 04/06/18 21:40 Z |
| <b>Flight Time:</b>       | 8.8 hours  |                |                  |
| <b>Log Number:</b>        | <a href="#">18P008</a>   | <b>PI:</b>     | Nathan Kurtz     |
| <b>Funding Source:</b>    | Bruce Tagg - NASA - SMD - ESD Airborne Science Program   |                |                  |
| <b>Purpose of Flight:</b> | Science  |                |                  |
| <b>Comments:</b>          | This flight included observations along the Laxon Line - a baseline priority mission. It also re-positioned the team to Fairbanks. |                |                  |

**Flight Hour Summary:**

|   |  |                          |                 |                      |                        | <b>18P008</b>      |
|---|--|--------------------------|-----------------|----------------------|------------------------|--------------------|
| <b>Flight Hours Approved in SOFRS</b>   |  |                          |                 |                      |                        | 201.2              |
| <b>Total Used</b>                       |  |                          |                 |                      |                        | 190.4              |
| <b>Total Remaining</b>                  |  |                          |                 |                      |                        | 10.8               |
| <b>18P008 Flight Reports</b>            |  |                          |                 |                      |                        |                    |
| <b>Date</b>                             | <b>Flt #</b>                                     | <b>Purpose of Flight</b> | <b>Duration</b> | <b>Running Total</b> | <b>Hours Remaining</b> | <b>Miles Flown</b> |
| <a href="#">03/13/18</a>                | 2018 OIB Arctic -<br>Airworthiness Test Flight   | Other                    | 0.8             | 0.8                  | 200.4                  |                    |
| <a href="#">03/14/18</a>                | 2018 OIB Arctic -<br>Project Test Flight - Laser | Other                    | 2.6             | 3.4                  | 197.8                  |                    |
| <a href="#">03/15/18</a>                | 2018 OIB Arctic -<br>Project Test Flight - Radar | Other                    | 5.7             | 9.1                  | 192.1                  |                    |
| <a href="#">03/18/18</a>                | 2018 OIB Arctic -<br>delta ATF                   | Other                    | 0.8             | 9.9                  | 191.3                  |                    |
| <a href="#">03/20/18</a>                | 2018 OIB Arctic -<br>Transit to Thule            | Transit                  | 7.9             | 17.8                 | 183.4                  |                    |
| <a href="#">03/22/18</a>                | 2018 OIB Arctic -<br>Science #1                  | Science                  | 7.8             | 25.6                 | 175.6                  |                    |
| <a href="#">04/03/18</a>                | 2018 OIB Arctic -<br>Science #2                  | Science                  | 7.9             | 33.5                 | 167.7                  |                    |
| <a href="#">04/04/18</a>                | 2018 OIB Arctic -<br>Science #3                  | Science                  | 8.1             | 41.6                 | 159.6                  |                    |
| <a href="#">04/05/18</a>                | 2018 OIB Arctic -<br>Science #4                  | Science                  | 8               | 49.6                 | 151.6                  |                    |
| <a href="#">04/06/18</a>                | 2018 OIB Arctic -<br>Science #5                  | Science                  | 8.8             | 58.4                 | 142.8                  |                    |
| <a href="#">04/07/18 -<br/>04/08/18</a> | 2018 OIB Arctic -<br>Science #6                  | Science                  | 8.1             | 66.5                 | 134.7                  |                    |
| <a href="#">04/08/18 -<br/>04/09/18</a> | 2018 OIB Arctic -<br>Science #7                  | Science                  | 8.3             | 74.8                 | 126.4                  |                    |
| <a href="#">04/14/18 -<br/>04/15/18</a> | 2018 OIB Arctic -<br>Science #8                  | Science                  | 7.7             | 82.5                 | 118.7                  |                    |
| <a href="#">04/16/18</a>                | 2018 OIB Arctic -<br>Science #9                  | Science                  | 8.2             | 90.7                 | 110.5                  |                    |
| <a href="#">04/18/18</a>                | 2018 OIB Arctic -<br>Science #10                 | Science                  | 8               | 98.7                 | 102.5                  |                    |
| <a href="#">04/19/18</a>                | 2018 OIB Arctic -<br>Science #11                 | Science                  | 7.7             | 106.4                | 94.8                   |                    |
| <a href="#">04/20/18</a>                | 2018 OIB Arctic -<br>Transit to Kanger           | Transit                  | 4.2             | 110.6                | 90.6                   |                    |
| <a href="#">04/21/18</a>                | 2018 OIB Arctic -<br>Science #12                 | Science                  | 8.1             | 118.7                | 82.5                   |                    |
| <a href="#">04/22/18</a>                | 2018 OIB Arctic -<br>Science #13                 | Science                  | 6.5             | 125.2                | 76                     |                    |
| <a href="#">04/23/18</a>                | 2018 OIB Arctic -<br>Science #14                 | Science                  | 8.2             | 133.4                | 67.8                   |                    |
| <a href="#">04/25/18</a>                | 2018 OIB Arctic -<br>Science #15                 | Science                  | 7.7             | 141.1                | 60.1                   |                    |
| <a href="#">04/26/18</a>                | 2018 OIB Arctic -<br>Science #16                 | Science                  | 8.8             | 149.9                | 51.3                   |                    |
| <a href="#">04/27/18</a>                | 2018 OIB Arctic -<br>Science #17                 | Science                  | 8               | 157.9                | 43.3                   |                    |

|                          |   |         |     |       |      |
|--------------------------|---|---------|-----|-------|------|
| <a href="#">04/29/18</a> | 2018 OIB Arctic - Science #18           | Science | 8.3 | 166.2 | 35   |
| <a href="#">04/30/18</a> | 2018 OIB Arctic - Science #19           | Science | 9.3 | 175.5 | 25.7 |
| <a href="#">05/01/18</a> | 2018 OIB Arctic - Science #20           | Science | 7.4 | 182.9 | 18.3 |
| <a href="#">05/03/18</a> | 2018 OIB Arctic - Return Transit Leg #1 | Transit | 6.4 | 189.3 | 11.9 |
| <a href="#">05/03/18</a> | 2018 OIB Arctic - Return Transit Leg #2 | Transit | 0.6 | 189.9 | 11.3 |
| <a href="#">05/03/18</a> | 2018 OIB Arctic - Return Transit Leg #3 | Transit | 0.5 | 190.4 | 10.8 |

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

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NASA Official: Bruce A. Tagg

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